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"Flee for your lives! the Sleidar dyke is broken, and the waters will be on us!"

HANS THE STRANGER.

PART II.

THE mortgage money was paid, the cow and winter stores purchased by express stipulation from Simon, (Adam said they were nothing the cheaper

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for that), and the Anslers became part of his establishment. The wages allowed them was not large, nor was the service easy. The increase of their riches was the sole object of Simon and his wife, and little rest or leisure was permitted to their

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dependants. Adam and Mauricene often met wearied out with the long day's labour, yet it was a comfort to sit down together by their fire in the old farm-house, and calculate when their savings would be sufficient to redeem such another field. Mauricene was thankful that her husband took more kindly to old Simon's work than could have been expected, though at times she feared the hard worldly ways he saw so constantly were growing on Adam's heart, and prayed that he might be kept from that temptation. The harvest was abundant, and all things seemingly prospered without and within Von Gruter's house; but there were uncertain signs about it.

Simon's two sons were young men of far different promise. Philip had a peaceable, steady mind, subject to few gusts or changes. Perhaps he was too easy in all things, having little care for gain and no ambition; but his industry was regular, his amusements harmless, and though yet unacquainted with the faith that works by love, Philip was favourably disposed to what was good. Being the first-born, he was heir to the family inheritance, but his parents took no pride in him, compared with their younger son. Hatto was handsomer, wittier, and more ambitious. His city relations considered him the genius of the house, and Simon had determined to make him a lawyer; but the youth was unstable, selfish, and easily lured by flattery. His father was too much occupied to observe these faults.

Lost in her butter and cheesemaking, Dame Von Gruter also was equally insensible of the difference that existed between her two maids. Sybil, who had been longest in the house, was the daughter of a farmer, inferior in wealth, but of equal rank with Simon; and was sent, according to old Dutch custom, to learn housekeeping by some years service under the notable dame. Sensible, modest, and serious, Sybil neither sought nor cared for ordinary admiration, though there were few finer girls in Delfland. She was the eldest of a large, but now motherless family. Her aim was to be a virtuous woman and a good housekeeper, as her mother had been, and Sybil had as yet learned to look no higher than this. Perrette had been recommended by a city friend, as one who had seen noble housekeeping in the great families of Antwerp, from whence she came, in the household of a spice merchant. Her own story was, that her father stood high in the service of the Spanish government of that city, but being of a good Roman catholic family, he had utterly cast her off for turning protestant, in which faith she was remarkably zealous, after Simon's fashion, though, alas! with little appearance of real religion. It was not, however, for her orthodoxy or domestic skill that Perrette stood in such high favour with her mistress, but whatever was done by Dame Von Gruter, Perrette admired, and the dame in consequence formed a high opinion of her maid's wisdom. She was some years older than Sybil, and less comely; but she dressed more smartly, and had quite a store of gay, frivolous airs, which were assumed at pleasure, and took vastly the attention of silly young men. Considering the Dutch customs of that period, by which the serving-maid was often held a fitting match for her master's son, there was an extraordinary dis-

tance kept between Hatto and Perrette, to his mother's great satisfaction; but they made strange signs to each other occasionally, and Mauricene had more than once observed them whispering in private. Philip, on the contrary, showed an open but quiet preference for the modest sensible Sybil; but Sybil was of little esteem in that house. Her portion was known to be comparatively small, and she had not the art of gaining favour like Perrette, who evidently disliked the girl's sober honest ways, and did her no good with the dame. Sybil had nevertheless a nobility of disposition which warded off jealousies and quarrels.

"Philip," she said to Mauricene, whose kindly wisdom had won the confidence of the motherless girl—"Philip seeks me, and I know he is true-hearted, but his parents despise my portion, and I will never be the cause of discord in a family. When my time of service expires, I will return in fair repute and peace to my father's house."

"It is a wise and good resolution, my girl; pray to be kept in it," said Mauricene. "Put your trust in God for this world and the next; make it your chief study to please him, and if it be for your eternal welfare, doubt not but he will grant your wish in this thing also."

The simple frankness and upright mind of Sybil gained every day on the childless woman's heart. She saw in her much that was cheering and promising, and had good hopes that a soul of such fair promise might at length become to her a daughter in the Lord. As the brethren of some orders are said to discover each other by certain signs, Mauricene began to perceive also that a child of grace had been added to the household in the poor and ragged stranger. He continued strange as ever; but even Hatto remarked his serious and pious demeanour, which was indeed too grave for one who had not suffered beyond the common lot. The men-servants said he worked with good-will, but not as if he had been accustomed to farm labour; that he often sang hymns in the fields, and was frequently found in secret prayer. He said his name was Hans, and no one took any further notice except Mauricene, who showed the stranger what kindness she could, and wondered much what great adversity had fallen upon him, for his speech was above the fashion of a peasant, and she had seen him read a Latin book. These observations Mauricene kept within her own mind, wisely judging that there might be some cause for concealment unknown to her. She was thinking on the subject one evening, as she kindled up the fire in their old farm-house and made things cheerful for Adam's coming. The night was falling wet and cold, for it was the close of autumn, but Adam entered in more than usual spirits. He sat down by the fire and talked of common things while she prepared the supper; still there was something in his mind of which he did not speak, and a troubled joy in his eye. Mauricene saw him cast earnest but stealthy looks on her, as if debating with himself whether he should tell her or not; a wild indefinite feeling of alarm began to creep over the woman; she couldn't ask what was the matter, and at length, for want of something more to the purpose, said:—

"Adam, do you know that Simon Von Gruter gives his harvest-supper to-morrow?"

"I must go to Delft to-morrow, wife," said Adam.

"To Delft!" repeated Mauricene.

"Ay, wife; it is not far off, and there are twenty thousand guilders there for us. Will not that take us out of our poverty and redeem my father's fields?" said her husband, in a tone of such strange triumph as made Mauricene think his brain was failing.

"Adam dear," she said, laying her thin hand, which now trembled violently, on his; "Adam dear, of what do you speak?"

"Of what will make us both rich," said Adam, drawing his hand away. "I have found it out at last! old Simon's man, Hans, is the heretic Skelling."

Mauricene stood gazing in his face as the whole truth broke on her. The poor ragged man who toiled in Simon's fields and slept in his back granary was then the persecuted pastor, whom her Adam would betray for twenty thousand guilders. Mauricene at one time could not have believed it; but the soul of the Christian woman rose to the occasion.

"Adam," she said, "you would not redeem our honest fields with the price of blood! you would not betray an innocent man to his enemies! The wealth of the world would not be worth that weight upon your soul."

For an instant the man's conscience woke, and uttered its voice in favour of her appeal; but in the next, the tempter had power. Adam had reached that stage at which sin justifies itself by the decrees and customs of men. He was amazed that his wife could take such concern about a heretic! Hadn't he been condemned for his doctrines? Didn't the stadtholder know better what was right than she?

"Adam dear, these matters belong to God," said Mauricene; "our rulers may be mistaken, and you are not the judge of this man's conscience. Oh, husband! he is poor, he is desolate, he has suffered much for his faith—"

"And arn't we poor?" cried Adam, seizing the opportunity to advance his own arguments; "servants in our old days? with Simon, the skinflint, sowing and reaping my father's land? Somebody else will be glad to get the money, I'm sure, if we throw the chance away. Old Simon is the man who would clutch it."

"Cast it from you, Adam; it is a temptation of the enemy," said Mauricene. "If it seem good to him, our Lord will take us out of poverty; and if not, it may be that a poor estate is our path to eternal riches!"

"Ay," said Adam, sneeringly, "much good your religion has done us," and he went on against "preaching women," and his own "folly in letting Mauricene hear a word of it," with a running comment on the good luck of his neighbour Simon, whose wife minded nothing but her butter and cheese, and had brought him a large dowry. These were hard words to hear after so many faithful years. Because disappointment and poverty abounded, the man's love had waxed cold; yet still that true helpmate pleaded his soul's cause with her husband. She prayed him, by the constancy of their youth, by the adversity they had shared, and the comfort they had found in

each other, to give up the guilders and let poor Skelling live; but Adam had by this time worked himself into wrath, that common covert for an evil conscience. He stormed at his wife for taking part with the stranger, and with unseemly threats commanded her to speak no more on the subject.

That was a weary night in Mauricene's after memory. She had borne up bravely against inward trials and outward adversity; but that her Adam should have turned out at once so unworthy and unkind was a blow which seemed too heavy for her faith. She found relief in prayer, however, but her tears fell fast while Adam slept a heavy troubled sleep, broken at times by sudden starts and half-articulated mutterings, of which nothing could be heard but guilders and a heretic.

Morning came at last, and Mauricene rose with a strong resolution. She would warn Skelling that one in the neighbourhood intended to betray him. He would never know that it was Adam, and her husband might be saved at least the actual sin. On that day, the remnant gleanings of Simon's crop were to be gathered in, preparatory to a harvest supper, which was never spread in that thrifty house while a single turnip remained in the field. All hands were therefore expected to be at work, and Adam could not depart on his wretched errand without awakening old Simon's suspicion. Hans and he worked side by side in the turnip field; Mauricene could see them both as she scoured the granary stair, but nobody noticed the fearful anxious watch she kept in that direction. The house was in a grand bustle of preparation, the harvest supper was the event of the year, and they were in high spirits, for a master dealer from Leyden had purchased all the stock he had to sell, at a price which satisfied even Simon. The farmer had declared over and over that he would be ruined by so cheap a sale; but when the dealer's back was fairly turned, he came out in high triumph with a leathern bag of Flemish dollars for all the household to see before it was locked up in his own strong chest. Hatto had assisted at both the display and the locking-up, and all the day after he and Perrette were most active in the festive arrangements. Mauricene had watched Hans and Adam, she knew not how long, till her husband was called to a distant field by old Simon, and Hans, who got all sorts of straggling work to do, was sent to the court-yard well to bring water for the wagon oxen. There was no one in sight, and the eager woman was by his side in an instant.

"Fly," she said, speaking low and quick; "there is one here who knows and means to betray you."

"I know it," said the preacher, looking her calmly in the face. "It is your husband, Adam Anslar, who overheard me in prayer for my persecuting brethren. He wishes to earn twenty thousand guilders, and even let him; they will put me to death, but my only son has turned against me, and says he will never regard me; and, if it be my Master's will, I care not now to live."

Mauricene would have persuaded him, but there was a look of miserable resolution in the weary eyes. The stranger's faith also had failed—no marvel that her own wavered; but a good

thought came to her help: "I have trusted in myself foolishly; Lord, help my soul in this great jeopardy, and save my husband from the sin, by whatever means seem good to thine everlasting wisdom." The prayer was uttered without words, yet Mauricene went back to her daily duties with an inward persuasion that it was heard and would be answered.

The day was dim with a wintry fog, which rolled down from the north-west. Old men said that the wind had blown longer from that direction than it had ever done since the great inundation which devastated the district two hundred years before, and there were unpleasant rumours regarding the dykes of the Delft canal. It communicated with the German Sea, and north-westerly winds were sure to bring an accumulation of waters, which at times threatened its flood-gates, though reckoned the strongest in Holland. Still the surrounding farmers trusted in its embankments. One of these, the Sleidar dyke, a steep mossy ridge, now centuries old, bounded Simon's fields. On that side it seemed firm as the hills of other lands, but poor eel-catchers, who plied their trade when the tides were low, said they had seen great chasms worn in its base by the winter floods. Nobody minded their report, however; it was a proverb in the neighbourhood, that the Sleidar dyke had stood two hundred years and would stand two hundred more.

The last remnant of Simon's harvest was gathered in. His granary was full, and his dollars safe in the chest; and, as the evening fell, all who had laboured in his fields or served his thrifty dame, weary but well pleased, and in their holiday trim, sat down to the harvest supper. The rustic feasts of old Holland were mighty doings. Dame Von Gruter's great kitchen was a masterpiece of scouring, from the tile floor to the hanging pewter; the tall candlestick, with its festive branches on, carried nine torches instead of the wonted three; and the long table was a perfect display of household magnificence. Like many of mammon's worshippers, the pair had a strong spice of ostentation in them. Before the dame stood the cheese she had prepared for the occasion, exactly her own weight; and at Simon's right hand, his grandfather's cup, a huge bowl of walnut wood, rimmed with silver, and filled to the brim with the best of corn brandy. There was rude merriment and abundant cheer; but Mauricene felt that the Lord of the harvest had small remembrance among them. Willingly would she have excused herself from the feast; but absence at such a time would have been cause of high displeasure. It was doubtless that reason which kept her husband in his place of honour near Simon, for the twilight was dry and cold, with a strong north wind, and the rising moon at the full. There were no festive thoughts in Adam's face, though he tried to look gay as the rest, and by fits succeeded; but his eye avoided Mauricene, and she saw him start as poor Hans, at the foot of the table, uttered a fervent "Amen" to Simon's hasty and formal grace. All were merry, but none more so than Hatto and Perrette, though the former seemed unusually active in replenishing tankard and flagon, and the latter moved about attending the dame and serving everybody with boundless good-nature. But

as jest and song, beer and brandy, began to circulate more freely, first Hatto and then Perrette slipped away, unperceived by any but Mauricene. Through the increasing revelry, her watchful eye also observed Adam steal from his place. She saw him open the outer door; she heard it softly close behind him. She knew that it wasn't a night's journey to Delft, but the woman felt no fear, for a voice seemed saying to her spirit, "Man purposes, but God disposes." It seemed, too, that strange sounds from without were blending with the revel. There was a hollow swell, like that of a far-off tempest, and at last crash on crash, as if great thunder mingled with it. Mauricene thought her ear deceived her, for none of the company appeared to perceive it. The mirth was by this time deafening. Simon had liberally dispensed the contents of his bowl, and drained the last drop himself.

"Bring us another bowl, dame," said the elevated boor; "we can afford it now. Neighbours," he added, in the condescension of vanity, "there will be more harvest work before this time next year, for I mean to buy another farm."

"Say, if God wills, good master!" said Hans.

Simon looked amazed at the ragged man who dared to admonish him; but before his wrath could find utterance, Adam Anslar rushed in with a face like a winding-sheet, shouting, "Flee for your lives! the Sleidar dyke is broken, and the waters will be on us! Come, wife!" It was the first word he spoke to Mauricene that day; and catching her up in his still powerful arms, Adam bore her out, followed by the revellers in wild confusion. The full moon was high in heaven, and the air was filled with the roar of coming waters. The North Sea, in its might, had broken the sluices of the canal—the worn dyke had given way with the pressure—and, like moving battlements, the great white waves poured over Simon's fields. Some fled to the parish church, some to the neighbouring windmill; but Adam cried, "Let us take to the granary: from it we can climb to the roof if need be; the waters will scarcely rise higher than that, and the house will stand at least till morning."

As he spoke, himself and Mauricene, Philip, the dame, and Sybil flew up the stair; the granary happily had not been locked for the night, and Simon's foot was on the topmost step, when the old man darted down and back to his dwelling, exclaiming, "My dollars! my dollars! where is the key, and where's Hatto? He took it to mend the ring."

"My father!" cried Philip, as he rushed in after him, though the waves were by this time breaking on the farm-yard wall. The dame uttered a long wild shout for Hatto and Perrette, which all present thought was answered by some voice far away in the flooded country. Then came the crash of doors and windows, and the drowning cries of poor cattle and horses. Hans, firmly grasping Philip by his clothes and hair, was washed out through the open door by a flood that rose to the granary stair. As the men passed, Adam, clinging by the topmost rail, threw out his long right arm and caught the preacher's ragged coat. It did not give way; another wave brought them nearer, and both, with Adam's help, scrambled up the stair; but there was now little safety in the

granary. A few more minutes brought the flood up to the floor, and by help of the piled-up corn they reached the air-door, as it was called, in the roof, and, climbing to the highest point, gathered themselves round the great chimney. It was fearful to see the waters rising, from that strange place of refuge. Far as their eyes could see, by the light of the broad full moon, the surrounding country—orchard, field, and farmstead—was one white and stormy sea. Higher and higher it rose, till the flood was up to the eaves, and the great old house rocked to its foundations as the waves smote the walls; yet on the spray-covered roof Mauricene's heart gave thanks, though it was with trembling, for her prayer had been fearfully answered; but she knew that the Judge of all the earth did right.

"Adam," she said, as her husband came near her, "has not the Lord been gracious to us this night, that the weight of those woeful guilders is not upon your soul?"

"You say true, wife," said the convicted man; "God be merciful to me a sinner!"

For seven long years after, the subject was never mentioned by Adam or Mauricene, except in their prayers; and many a prayer was offered up by hearts and tongues little used to the work, with that wild sea and clear moonlight around them. At last the day began to break, and the swell of the flood was over; settling into stillness, the waters lay over the low Delft lands, with here and there a spire, a chimney, or the topmost boughs of some tall tree seen above them. It was joy to the poor family when, by sunrise, a boat was seen approaching. It came from the higher country. Sybil's father was one of the crew, and at her request the good man took them home to his safe but humbler farmstead. There they remained, all now equally poor, till with a change of winds and the coming of summer, the great flood gradually subsided, and most of the lands were left dry. The industrious Hollanders repaired the dyke, and all who were spared went back to their old homes and holdings; but from Adam and Simon's land the waters were never thoroughly drained. The ruins of both houses had encumbered the spot, and the ground became a marsh. Old Simon was found bent over his strong chest, which contained nothing but water; and in searching for remnants of property, Philip and Adam made a strange discovery. In a hollow spot of a bye-way, leading to the Amsterdam road, lay Simon's best horse and lightest wagon; on one side of it was Perrette and on the other Hatto, as the flood overtook them; but the young man still clutched the bag of dollars which had cost his father's life.

"It is my father's money, and you have saved me," said Philip; "let us buy a farm in the high country, beside Sybil's father, and share it."

The farm was bought, and two cottages rose upon it. In one dwelt Philip with Sybil, his now truly pious wife, and Dame Von Gruter his mother; much of whose restless thrift and worldliness seemed to have been swept away by the flood, which took at once her house, husband, and son. In the other lived, in great peace and concord even to the end of their days, Adam, Mauricene, and the persecuted pastor, always known in the neighbourhood as Hans the Stranger.

A PEEP THROUGH LORD ROSSE'S TELESCOPE.

PARSONSTOWN, or Birr, is a town in King's county, so comfortable and pleasantly situated with its rows of old trees, its pretty church, its flourishing shops and villas, that I almost supposed myself to be in a Scotch or English town. Not a hundred yards from it, and divided from one of its streets only by an immense castellated and ivied wall, stands Birr Castle, the ancestral abode of William Parsons, earl of Rosse; it dates from 1620, but in 1832 a fire destroyed the centre part of the edifice, which has been replaced in excellent keeping with the old building. The country around is flat, with the exception of a curious conical hill, which terminates one of the park vistas, and is the famous Tipperary hill, well known in fairy lore as Knocksheogowna, "the hill of the fairy calf." Close to the castle windows flows the Blackwater, or Concur, which joins the Brusna about an Irish mile from the house, forming at its junction the boundary between King's county and Tipperary. These two rivers exhibit the phenomenon of the Rhone and Arve—the muddy Brusna flowing on for some distance beside the clear tide of the Blackwater, without mingling their currents. In front of the castle extends a wide and beautiful demesne, in passing through which the eye is struck by two remarkable objects; a white building consisting of two parallel walls, between which I observed something huge, dark, and tower-like; while a few yards farther on stood a large structure of black legs and arms, looking very like a spider of the mammoth and mastodon period. The first is the six-feet mirror telescope, calmly reposing in its unconscious fame; the second is the three-feet mirror telescope, which, though eclipsed by its stately rival, yet possesses one material advantage, as we shall afterwards see.

As Irish skies are not proverbially the clearest in the world, our hopes were very faint of seeing what we came to see; and a tradition of Sir James South having been detained for six weeks without one clear night, grated unpleasantly on our ears. People who repose quietly in their arm-chairs after dinner, and go to bed at reasonable hours, have small ideas of the excitement prevailing in astronomical households as to the state of the weather. How anxiously we all watched the dark banks of cloud, and the tremulous fleecy vapour upon the blue sky, and the rich crimson gold and green of the sun-setting! At last,

"When the sun fell, and all the land was dark,"

the welcome summons reached us from the observatory. Truly, to approach the giant telescope for the first time by night is a scene never to be forgotten; but, faintly indicated by the dim star-light and partially veiled moon, the immense structure loomed almost awfully in the obscurity. On one side, the open door and windows of the small observatory, which contains two transit instruments, gave out a gush of light and warmth; on the other side, the black and uninclosed scaffolding of the three-feet telescope, stood out against the dark blue heavens. Although the skies were looking down upon a turbulent land, the only sounds that broke the silence of midnight were the whisperings of the lake, the river, and the trees.

By a safe and comfortable staircase we ascended to the top of the building, which consists, as we have said, of two castellated parallel walls, sixty feet high, between which is suspended by chains, the vast tube, which, we may remark *en passant*, is the exact size in length and breadth of one of the round towers at Clonmacnoise in King's county. Upon reaching the top, we were introduced by a small door into a stair-shaped gallery or stage; the telescope was pointed to the heavens about twenty feet from where we stood; beneath us was a depth of sixty feet, and no apparent way of bridging the chasm. At last one of the assistants, stationed a few steps below, turned a small windlass, and lo! we began to move gently through the air, till we arrived at the mountain-like side of the telescope, about four or five feet from its mouth. With no supports from beneath, it appeared as if we were poised in mid air; strong wooden beams, however, secured by iron slides, supported the gallery from the wall which we had just left. So imperceptible is the motion, that one night a gentleman, unconscious of having left the solid landing-place, opened the gallery door, and walked sixteen or twenty feet, with no other footing than a narrow unrailed beam, but almost miraculously he reached the other side in safety.

The six-feet concave mirror, or speculum, is made of tin, mixed with copper, and polished to an exceeding brightness. In looking into the mouth of the telescope by what is called the front view, we see the inverted image formed by reflection from this mirror in tremulous and dazzling radiance, but it is not there that ordinary observations are made; a second mirror of small size is placed at an angle of 45°, so as to reflect the image to the side of the instrument, where it is viewed through eye-pieces of different magnitudes. We took our places at this point by aid of the aforesaid "aerial machine."

The evening, though lovely to unastronomical eyes, was not altogether favourable for observations; however, we saw

"the galaxy, that milky way
Which nightly as a circling zone thou see'st
Powdered with stars."*

It is impossible to describe the distinctness, and the nearness, and the individuality of the "starry powder;" in the middle of it was a double star—"twin suns," as they have been called—moving in their mysteriously united beauty and brightness, the only objects in the calm unmoved heavens that speak to the heart of affection and sympathy. Of course, the great object of ambition was to see the nebulae—the resolution of which by the giant tube destroyed that plausible theory which, when carried to its greatest extent, made such dangerous aggressions against the Divine creative acts, originating all worlds from a slowly progressing vapour and fire-mist. The atmosphere would merely permit us to see the Dumb Bell nebula, so called from a supposed resemblance in its form to that instrument; it is only a partially resolved one, even by the gigantic ray; the white vapour which still remains,

"Sown with stars, thick as a field,"

* Milton.

although invisible, yet reserves its harvest for some still greater triumph of light. We could not see the moon through the six-feet telescope, as she was not within the meridional range, which in this instrument is limited by the two walls; the disadvantage of which is counterbalanced by the speed and steadiness with which it can be lowered or elevated. We accordingly repaired to the three-feet telescope, which can be pointed to all quarters of the heavens, and to which the following high comparative praise has been given. "To look through Herschel's four-feet mirror, compared with Lord Rosse's three-feet mirror, is like a short sighted person looking at the stars without his spectacles." So says Dr. Nichol.

Having mounted a very precarious ladder with various feminine tremors, I gazed upon the lunar valleys, mountains, and caverns, so near and so distinct, that there seemed no obstacle to taking a quiet walk amidst their lights and shadows, their deep ravines, their volcanic cones and cavities. The silence and the immobility of that bright world was almost oppressive; one gazed and listened, expecting to see and hear life, but no life was there. Dr. Robinson of Armagh told me, that if there were large buildings like a church, or a mill, or railway works, they could be clearly discerned; but there has been no change or furrow since human eyes were permitted to draw nigh to its calm surface. Were there inhabitants, they must be independent of air and water, and must be scorched in light and heat one half of the year, and frozen in cold and darkness the other. May it not be that the moon is in somewhat of the same transition state as our earth after the reign of fossil life, and before the Creator had said, "Let there be light," and atmosphere, and human life?

"For such vast room in nature unpossessed
By living soul, desert and desolate,
Only to shine, yet scarce to contribute
Each orb a glimpse of light, conveyed so far
Down to this habitable which returns
Light back to them, is obvious to dispute."*

The whole scene, even in the intervals of active vision, was one suggestive of much solemn thought. Every now and then a meteor flashed excitedly amidst the calm stars and planets, and even as swift and short seemed the career of man in comparison with the ages of the past and future, chronicled before us in the heavens. "Hither shalt thou come and no further" seemed legibly written on the genius of man; while all that he yearns to know, and cannot know, is known, it may be, to the babe that has gone to glory but yesternight.

The telescope, in the day time even, is worth going to Ireland to see; every time I saw it, new feelings of wonder and admiration were excited, and I never tired of walking through the tube, and trying in vain to touch the roof. It was quite delightful, too, to see the crowds of happy and wondering faces that gather round this scientific marvel—the whole grounds being thrown open both to townspeople and strangers, every day after two o'clock; they are also permitted to examine the works, and to walk through the telescope. I never could divest myself of a sort of Jonah-like feeling in entering that huge black mouth, and

* Milton.

strongly did the whole structure resemble some mighty animal of a former creation, endowed with instinct beyond its centuries. The tube itself is fifty-seven feet long, and nearly twelve tons in weight, which is balanced by counter weights, so that a child can put it in motion. The large box which contains the speculum is eight feet in diameter. The speculum is six feet in diameter, weighs four tons, and its focal length—or the distance where the reflected rays meet—is fifty-three feet. There are three assistants who are always ready to move and direct the instrument, besides Lord Rosse's accomplished assistant observer. The following is a table of comparison with other reflecting telescopes:—

NAMES OF MAKERS.	DIAMETER OF SPECULUM.	AREA OF SURFACE.
Newton . . .	1 inch.	1 square inches.
Hadley . . .	2.37 "	5.6 "
Hadley . . .	4.5 "	20 "
Hadley . . .	5 "	25 "
Hawksbee . . .	9 "	81 "
Ramage . . .	15 "	225 "
Lord Rosse . . .	21 "	441 "
Lord Rosse . . .	2 feet.	576 "
Herschel . . .	3 "	1296 "
Herschel . . .	4 "	2304 "
Lord Rosse . . .	6 "	5184 "

The places where the different parts of the machinery were constructed, are also well worth repeated visits. All the people about the place speak of the telescope with the greatest affection and enthusiasm; a most intelligent and ready-witted Irish workman, who had himself assisted in the work, showed me the building where the tube had been constructed, and the gable wall of which had been knocked out to have it launched "just like a ship." Then there is the work-shop, and the different moulds and apparatus, where the specula were cast, ground, and polished, this being the most arduous part of the undertaking. How terribly the magnitude of Lord Rosse's heresy would have scared that wise old Martin Horky, one of Galileo's opponents, who declared "that he did not more surely know that he had a soul in his body, than that reflected rays were the entire cause of Galileo's errors."

One can easily imagine how the pleasure of seeing this great palace of light was enhanced by doing so under the auspices of its illustrious architect. Lord Rosse is a man in the prime of life, robust and ruddy, as if his midnight vigils and anxious labours had only been conducive to his health and vigour; he has a voice of winning sweetness, a brow and smile of peculiar cheerfulness and placidity; his whole aspect giving one as much the idea of the genius which devised the means, as of the perseverance which laboured to overcome the obstacles that even amongst his brother philosophers had been pronounced insurmountable.

MY ADVENTURE IN PERU.

ON the coast of Peru, between the Cordillera of the Andes and the ocean, is a tract of country rarely visited by Europeans. The traveller accidentally thrown upon it might imagine himself suddenly transported from the soft Pacific, with its palm-clad isles and coral reefs, to the centre of the great

African desert, exchanging the scented air and steady trade-winds for the whirling sand-hill and the death-breathing sirocco.

Extending over a length of five hundred leagues, its breadth varying from eighty miles to merely a few paces—as the foot of the sierra advances to or recedes from the sea—is a belt of barren sand, its desolate surface only broken at wide intervals by the passage of some mountain stream, which, spreading fertility on its rainless banks, raises in the sand-ocean a narrow island, covered with the rich and varied vegetation of the tropics. At times, the snows, melting on the peaks of the vast mountains, hurry down the ravines in torrents, and the flood, filling the little watercourse, overflows their banks, and spreads even into the thirsty desert, giving new life to the scorched fruits and flowers that grace the little strip of green.

Between these streams there is no living creature. A curse seems to rest upon the land; for, as the lofty sierra draws into its bosom every moisture-laden cloud, no drop of rain falls on the parched coast. No solitary blade of grass decks the yellow surface; the hardy chinchilla seeks refuge in the rugged hills; and the stately condor, soaring aloft till he is but a dark spot upon the pure blue sky, never stoops to so inhospitable a resting-place.

Though destitute of life, the desert is not motionless. The fine sand, caught up by an eddying wind, is carried along in high columns, long lines of which are seen dancing over the plains, occasionally striking against each other and dispersing in immense clouds, which are again caught up and hurried on as before. Sometimes a number of small pillars are united, and these again absorb others, until the mass becomes too heavy for support, and revolving for a short time on its base, falls in a semicircular mound, against which other columns break themselves, until the mound rises to a hill, still retaining a curved shape. Hundreds of these *medanos* are scattered over the desert, some of them of considerable size; but the close vicinity of the Cordillera throws into the shade every other eminence, and reduces the sand-mountains to mere mole-hills on the plain. Close to the sea, the low roar of the surf, and the constant leaping of the waves, with the presence of numerous sea-fowl, break the death-like monotony of the scene.

My visit to this dismal spot was paid under circumstances which threw no charm around its horrors, but rather added to their strength. Fond as I ever have been of wild adventures and strange scenes, it would require much to tempt me to repeat the one which led me here. I had just left a ship in one of the Peruvian ports, and, having nothing better to do, joined two sailors in the purchase of a boat, with the necessary outfit for a sealing trip. Seals, we were told, were plentiful on the islands on the coast, and we were advised to make our first attempt on a small group which lay about thirty leagues to the southward of the port of Pisco. We reached our destination after a long and heavy pull against the south-east trade-wind, and found it to be a mere cluster of barren rocks, covered with a slight coating of guano, completely destitute of vegetation, and without a single drop of fresh water. Against the latter contingency we were well provided; the bottom of our large whale-boat being

stowed with several huge earthen jars which had once been filled with *Italia* or *Pisco*, the white brandy of Peru, but which now held a far more precious liquid—good spring water.

The rocks were alive with flocks of sea-birds; a few turtle occasionally contrived to crawl upon the lower edges; and on the level of the sea were numerous small caves, the rendezvous of our friends, the seals. We did not find the latter so plentiful as we had been led to expect; a circumstance which we attributed in some measure to the presence of a number of sea-lions, or hair-seals, a species much larger than the fur-seal, but destitute of the fur, which alone makes the latter valuable. The seal itself, and the mode of capturing it, have been so frequently described, that I shall not stay to weary the reader with a repetition. I may, however, remark that the colour of the seal is a beautiful silver gray, that being the tint of the long hair which forms its outward covering, and which is removed by the furrier, leaving exposed the soft brown fur with which every one is familiar. The animals are generally captured during the night, or rather, in the hour preceding sunrise, before they begin to leave their holes for the water. A single blow on the fore-part of the head instantly kills them; though, if the stroke be unskillfully given, the seal will often make a furious attack on the aggressor, gnashing his strong white teeth, and barking like a dog. A full-grown hair-seal is a dangerous adversary, and, though generally easily avoided, from his inability to make a short quick turn, he will when enraged spring forward on his flippers with considerable speed.

We quickly cleared the island on which we first landed, and, having secured about forty skins, prepared to pass over to another that lay at two or three miles distance. The spring tides were in, and with them a tremendous surf is always rolling on the coasts of the Pacific, which renders landing, even on a smooth beach, a very delicate manoeuvre, requiring great care to prevent the boat from filling or capsizing. Ours was, as I have said, a South-sea or American whale-boat, built stem and stern alike, both sharpened to a point, and steered by a long oar projecting over the stern—a mode of steering remarkably well suited to a heavy surf, as the powerful leverage of the oar gives the steersman a control over the boat which the common rudder does not possess.

The only landing-place on the island we wished to reach was a narrow strip of beach to sea-ward; from each side of which a small reef of detached rocks stretched round the island, and on this the heavy rollers were dashing themselves to pieces, and the white surf boiling and roaring over it most gloriously. We pulled for the patch of green water opposite the little beach, and waiting for an extra-sized roller, with one hearty stroke the boat glanced between the rocks. At this critical moment, the steering-strop, which connects the steer-oar with the boat's stern-post, snapped; the boat instantly broached to, and came broadside on to the sea; the next wave curled over her for an instant, broke, and she was gone. The sea which filled her carried me on to the shore, but the reflux washed me out again beyond the line of surf, happily clear of the rocks. With a few strokes I was again within the channel, and a following wave

carried me high up on the beach, where, digging my fingers in the sands, I held on for a moment, and then ran up above the tide-mark. One of my companions was already ashore; the other, who was steering when the boat filled, was gone—most probably crushed on the rocks, and then washed round the point of the island. We looked in vain for him. The boat was knocked to pieces; two oars, a few fragments, a jar half filled with water, and some pieces of another, were all that reached the island; everything that we possessed, excepting the few skins we had taken, was irrecoverably gone. The skins were hidden on the first island, where we intended to call for them on our return.

After the first feelings of pleasure and expressions of thanksgiving for our safety were over, we began to consider what were our prospects for the future. They were not very satisfactory. The provisions had all disappeared, the island offered no substitute, and we were at least eight miles from the main land, and out of the usual track of vessels running down the coast. After a short consultation, we commenced a tour of our newly acquired territory, to ascertain if it would afford us any sort of shelter, as our little tent had gone to the fishes. Our search was unsuccessful; we picked up a few limpets, that served for supper, and at sunset lay down on the lee-side of the island, wrapped in our ponchos, which we had happily strapped round us with the belt that contained our sealing knives. On the second day, we found a turtle on the little beach, and made a prize of him, cutting the flesh in strips, which we laid in the sun to dry, as the Brazilians prepare jerked beef. We had thus a tolerably good supply of food, but our small allowance of water would not long hold out, and we suffered terribly from the intense heat, our only shelter from which was—wrapping the ponchos round our heads, and standing up to the neck in water. This we repeated several times during the day, and I have no doubt that the process aided to alleviate thirst, and thus assisted us to spin out the contents of the little jar. So long as daylight lasted, our eyes were constantly fixed upon the sea, and many a white sea-bird was mistaken for a distant sail. At night we dreaded that some vessel would pass unseen; and often sent across the ocean a long shrill cry, which we hoped might reach a passing ship hidden from us by the darkness.

At last, on the morning of the sixth day, we saw, creeping along the land, a small schooner, steering a course that would evidently bring her close to our island. We fastened a shirt to one of the boat's oars, which we fixed on the highest point of the rock; and with the assistance of the tinder-box that I always carried at my belt, and the expenditure of half my cotton shirt, we raised a fire from the small remnants of our boat.

The wind was very light, and the schooner seemed asleep on the water; I thought she would never near us; our fire was dying out, and we had nothing to replenish it; we were almost losing hope, when suddenly there rose to the vessel's peak a flag, which blowing out, showed us the Chilean ensign with its single star, and we knew that she had seen us. In two hours we were aboard. We found she was a Chilean schooner from one of the windward ports of Peru, bound to

the Sandwich Islands, where the captain proposed to take us; but, as we had no wish to visit them, he stood in close to the land and sent the boat ashore with us, supplying us with as much provisions and water as we chose to carry, in return for our seal-skins, which we recovered from the island.

This was my first visit to a Peruvian desert. The captain of the schooner had explained to us the nature of the country through which we should have to travel; but, as he also informed us that we were no great distance from one of the intersecting streams, on which were several haciendas, we determined to proceed. Fearful of being lost if we ventured into the interior, we kept for the most part close to the sea, following the indentations of the coast. No stranger ever dares to cross from stream to stream without a guide, and even these are frequently at fault, as the drifting sand invariably obliterates the tracks, and the only landmarks are the ever-changing *médanos*, and occasional half-buried heaps of bones, the remains of mules and asses that have perished in the desert. The inhabitants of the little villages on the rivers relate many dreadful narratives of the sufferings of travellers, who have lost their way and died for want of water.

In 1823, a vessel, having three hundred troops aboard, was wrecked about fourteen leagues south-west of Pisco. The crew and soldiers escaped the milder death by water; many of them to meet a far more terrible one—to perish by its want; their blistered lips and swollen tongues mocked by the scalding sand-ocean, which seemed, to their reeling eyes, to heave and set in waves of liquid metal. Though so near the town, upwards of a hundred men died in the attempt to reach it, and numbers dropped exhausted on the route. Immediately on the receipt of intelligence of the disaster, a troop of cavalry, with a supply of water, was despatched to the assistance of the survivors. Many of them were discovered lying around a clump of palms, which occur at very rare intervals near the sea, and beneath which a small quantity of water is generally found. Some of the miserable men had expired in the act of tearing up the ground with their hands, in the desperate search for the means of quenching their burning thirst; and few among them were able to raise to their blackened lips the precious water brought by their comrades. Such were the effects of only three days' sojourn in this desolate land, where the bones of those who perished in it still mark the scene of the terrible calamity.

Already weakened and reduced by our stay upon the little island, we were but ill fitted to contend against the hardships of a passage through the desert; and, though our stock of provisions and water was sufficient to insure us against present thirst and famine, yet these, though the chief, were not the only evils. Anxious to make as much way as possible during the cool night hours—for it was nearly sundown when we landed—we travelled on until long after the southern cross, the time-piece of the Indian, had passed its meridian and pointed to the west; but the frequent détours we were compelled to make round the curved beaches, added considerably to our journey. At length, worn out by fatigue, we lay down on a heap of seaweed and slept soundly until sunrise. Refreshed by our rest, and by a hearty breakfast of biscuit

and jerked beef, washed down by a draught of water and *italia* (Peruvian white brandy) with which the Chilean captain had supplied us, we proposed to make a short stretch into the desert before the sun had attained his full power; for we expected to reach the river on the following day, and I was anxious to gain a better idea of this singular country than could be obtained by merely travelling along its coast.

With a recklessness upon which I now look back in astonishment, we left our bag of provisions and jar of water on the edge of the narrow line of seaweed which marked the presence of the high spring tides; supposing that we could easily return to them, and unwilling to burden ourselves with a heavy load whilst wading through the sand. After walking about a couple of miles inland we lost the low roar of the surf, and became more conscious of the strange realities of our position. As I stood apart from my companion, who had slightly preceded me, my first impression was of the utter loneliness, the intense solitude of the scene. I had wandered over the plains of Australia, and the pampas of Chili; the thick forests of Tasmania, the swamps of Ecuador, and the rugged passes of the Andes; but I had never before felt, in its full force, what it was to be alone. The restless sand was still; not a breath of air was there to stir it; not a cloud moved in the heavens; and the earth shone with a steady glare that did not even flicker in the motionless atmosphere. As I raised my foot the liquid sand flowed in and instantly erased the impression; the soil, like its sister ocean, refused to retain a token of man's presence.

It was a realisation of the artist's idea of the last man, in all his horror-stricken loneliness; but its solitude was more perfect; for he looks on the wreck of what has once been life, and sees around him the results of motion and the marks of change. But here, every portion of the landscape seemed to have retained the exact position in which it was created; and though, in fact, the most changeable of all scenery, yet its desolate aspect ever remained the same. The idea of death was not present: death would have implied change, and even the presence of the dead would have been companionship. The eye roamed eagerly over the scene, seeking some point to rest upon. A dark rock, a solitary tree, even the shadow of a flitting cloud, would have been relief. The stillness was frightful; its very perfection destroyed the feeling of repose which soothes the mind when gazing on a quiet landscape, and the most grating sound would have struck pleasantly on the straining ear. Every sense was painfully alert; but no distant landmark, no wandering perfume, no low tone or passing breeze responded to the call. A feeling of utter hopelessness oppressed me; and as I turned and caught the towering cordillera stretching away, peak above peak, the sudden barrier, while it broke the spell, appeared to shut me out from all communion with the world, and leave me still more helplessly alone.

But the sun was now high in the heavens, and the sand burned our feet as we turned to make our way back to the sea. And then, for the first time, did we remember that, all traces of our path being blotted out, we might possibly miss the spot on which we had carelessly left our stores. A simul-

taneous exclamation of terror burst from us; but, recollecting that we must eventually reach some part of the beach, we turned our backs on the mountains and the sun, and plodded resolutely onwards. The breeze was coming down just as it does at sea, making cat's-paws in the sand, and scattering before it little sprays of dust. It reached us hot and dry, and, as it increased in strength, clouds of fine sand swept over us, filling our eyes and nostrils, and penetrating the blistered skin. Wrapping the ponchos round our heads, we pushed on, and shortly came in sight of the sea, and heard with rapture the sullen roll of the breaking surf.

Arrived on the hard beach, we were unable to decide on which hand lay our treasures; but seeing no marks of our passage, we concluded that we were beyond our last night's resting-place, and so turned back towards it. Though little more than two hours had elapsed since we parted with our water-jar, yet we were already suffering the most tormenting thirst; and, with tongues incapable of speech, and eyes half-blinded by the sand and sun, we prosecuted our search with all the earnestness of men whose lives depended on its success. In a few minutes my companion discovered the foot-prints, still legible on the wet beach, where we had turned off into the desert. Twenty yards further was our resting-place, and here, as we had left it, covered with sea-weed, was the much prized water. The flask of brandy was tossed contemptuously aside, and the narrow neck of the *botiga* passed alternately from mouth to mouth, furnishing a draught which all the gold and silver buried in the frowning mountains could not have purchased.

After a short rest beneath the slight shadow afforded by a heap of mingled sand and weed, we started afresh, as the sun declined, and the breeze, hauling from seaward, blew with comparative coolness. As we passed the track which we had recognised in the morning, and which had led us to our lost water, I could not help recalling the favourite book of my boyhood—a book that has made more sailors than press-gang or bounty-money—and remembering among its black engravings one entitled “Crusoe’s astonishment on discovering the foot-print in the sand.” But whilst poor Robinson’s discovery was to him but a source of dismay and terror, ours was a sign of gladness, a token of hope renewed. On the second day, we fell in with patches of thin sickly grass; by degrees other marks of vegetation appeared, and in the evening we reached the river, then a small stream that rippled gently along its bed, but in the melting of the mountain snows increased to a rapid, foaming torrent, sweeping impetuously along its channel, overflowing its banks, and spreading fertility around it. Unlike other rivers, these decrease as they approach the sea, absorbed by the thirsty country through which they pass, and retained to supply the extensive systems of irrigation which are in constant operation on their banks. Travelling up the course of the river, we shortly afterwards arrived at a sugar plantation, where we were hospitably received by its owner, a Frenchman, and a long resident in the country. What a contrast between the scenery here and that through which we had just passed; from a land destitute of all vegetation to one covered with it in its most luxuriant form was but a single step.

From an arid desolate region, where the bleached bones of the dead were the only signs that life had ever been, to a fruitful land glowing with rich produce, brightened by a lively sparkling stream, and gladdened by man’s presence, was a change indeed. To us, so recently escaped from the most dreadful of all deaths, the scene had double charms; and though familiar with the rich products of the tropics, yet they met us here as new acquaintances, and we looked upon them with fresh pleasure. There were patches of tall sugar-cane; fields of noble plaintain and banana, decked with the rich purple of their pendent clusters, and their huge dark-green leaves shadowing the bulky melons that trail their slender stems beneath; the branchy lime tree, its yellow fruit twinkling among the thick dark foliage; the orange and pomegranate; and the creeping vine, laden with heavy bunches of ripe downy berries. Here was the guava, a low bushy shrub, covered with tempting apples ready for conversion into rich, fine-flavoured jelly; there the sombre olive offered its green oily fruit. Yonder were a few scattered date trees near a field of stately maize, the corn-cobs waving their long silky plumes above fresh rows of juicy melons, guarded by a fence of prickly cactus with its gorgeous flowers fast ripening into fruit. The black alligator pear, its hard kernel bedded in a mass of greenish marrow of peculiar flavour, eaten with salt, and highly prized by native palates, was there; with the hot crimson chili or capsicum, and the wrinkled tomat, growing beside the spreading calabash tree with its crop of washing tubs and sugar basins.

But see, on this low tree, amidst the narrow pointed leaves, hangs the pride and darling of Peru—the fragrant cherrimoya. A little larger than an apple, with a scaly rind, its colour dark green intermingled with spots and lines of a greyish brown or black, it has not a very prepossessing appearance. But open it; sprinkled with cinnamon-coloured seeds, is a white juicy pulp, whose delicious flavour almost warrants the extravagant encomiums of the Peruvians—in which even the grave Humboldt has joined—and you, as the luscious syrup trickles over your palate, are half-guilty of high treason in ranking it above the plums, and pears, and apples, that flourish round your own old home in far-off England.

But here is a plant you have seen before—the humble but invaluable potato in its native country; and as though it liked its own soil best, it is large and of most excellent quality. Here, too, are gigantic members of the same family—the yam and the camote. The leguminae are represented by beans, callavancas, and the perpetual feijole, a small bean which appears at every meal. Our favourite cereal, wheat, is absent; and its place is but ill supplied by the yellow Indian corn. On the sides of the mountains grow barley, rye, and above all the quinoa, which in some parts of Peru becomes the staff of life. It is the produce of a small shrubby plant, bearing thick clusters of little flowers, succeeding which are pods filled with small seeds. These seeds are cooked like rice, and with the boiled leaves form the chief sustenance of vast numbers of the Indians of South America. But we are loitering on the way, loath to leave so rich a garden.

After watching the process of converting the thick cane-juice into *chancaca*—for the sugar is not granulated, but cooled in large cakes about an inch in thickness, to which that name is given—we travelled up the river, in company with an Indian mule-driver and his troop of asses laden with produce for Yea, a large town a few leagues distant. When near the sierra, we struck off into the desert, our guide directing his course by the *medanos*, which long habit had enabled him to convert into land-marks, though from their frequent shiftings and changing shapes they are but sorry guide-posts. We reached Yea, however, in safety, and as a beaten road leads from hence to its seaport, Pisco, our journeys in this desolate country were over, and we could once more mingle in

"The crowd, the hum, the shock of men."

REMARKABLE BOYS.

BLAISE PASCAL.

BLAISE PASCAL was born on the 19th of June, 1625. His father, Etienne Pascal, was a man of considerable acquirement and mathematical talent, and Blaise being an only son, his education was conducted entirely under the superintendence of his father, who indeed was his only instructor.

The boy from his earliest years displayed marks of extraordinary ability. His infantile questions upon the nature of things and their causes surprised all who heard them. Nor was he satisfied with common reasons, but if not thoroughly convinced of their justice, he searched earnestly for himself until he recognised the true. Having remarked that a glass, when struck by a knife or other instrument, gives out a sound which ceases on the application of the hand, the child directed his thoughts towards discovering the cause, and at eleven years of age he composed a treatise on sound, wonderful for its clear and logical reasoning.

M. Pascal, as we have before observed, was learned in the mathematics. He wished his son to be proficient in the languages, and knowing the absorbing nature of mathematical inquiry, he resolved, if possible, to keep Blaise ignorant of geometry until such period as he had mastered the Latin, Greek, and other languages. He therefore removed all books on the subject from the reach of the boy, and refrained in his presence from conversing on it with his friends. Even these precautions were useless. The child's curiosity was excited, and he often entreated his father to permit him to learn mathematics; but M. Pascal always refused, promising at the same time that he would teach him in due course, as a reward for his advancement in Greek and Latin.

One day, Blaise asked his father what was the meaning of geometry. He was answered, that it is the science which treats of the extent of bodies; their length, breadth, and depth, and the way to make figures in a precise, just manner, together with the method of finding out their relations one with another. Having given this explanation, M. Pascal forbade his son to mention the subject again.

Blaise, however, if he might not speak about geometry, could not help thinking and dreaming

about it. His hours of recreation were completely absorbed with these reflections, and he amused himself by drawing with a piece of charcoal all kinds of geometrical figures on the floor of his play-room. One day, while so occupied, his father chanced to open the door of his apartment without being seen, and to his surprise found his son on his hands and knees in the midst of his favourite employment. But much greater was the astonishment of M. Pascal when he discovered that the boy, by his own unaided efforts, and without knowing the name of one geometrical figure, had arrived as far as the thirty-second proposition of the first book of Euclid, and demonstrated that the three angles of every triangle taken together are equal to two right angles.

Being asked what made him think of such a thing, he answered that he had previously demonstrated such and such a truth, which had led him on to further inquiry, and so he explained the course of his researches from perfect demonstrations back to his first principles, axioms, and definitions.

The happy father, struck by the grandeur and force of his son's genius, left him in silence, and hastened to the house of his intimate friend M. Le Pailhens. This gentleman observing him greatly agitated, even to tears, begged to know the cause of his sorrow.

M. Pascal replied: "I do not weep for grief, but for joy. You know the pains I have taken to prevent my son obtaining any knowledge of geometry, lest his mind might be distracted from his other studies; yet see what he has done."

The whole history was then related, and how, as it were, the boy had of himself invented a system of mathematics. M. Le Pailhens recommended that this ardent thirst for mathematical truth should no longer be repressed; and Euclid's "Elements of Geometry" were accordingly placed in the hands of Blaise Pascal for his recreative reading. He went through this book without requiring any explanations. At sixteen years of age he composed his "Treatise on Conic Sections," a work of such acuteness, that the celebrated Descartes would never believe that it was the unassisted production of a mere boy.

During this period he continued his studies in Latin and Greek, also in logic and other departments of philosophy, in all of which he made great progress. His application was so constant and excessive that his health began to suffer at the age of eighteen. About this time he constructed an arithmetical machine, by which, without any knowledge of arithmetic, all kinds of computations may be performed with ease.

Father Mersenne having proposed to the world a very difficult problem, which defied the efforts of the most famous men of the day to solve, Pascal, then on a bed of sickness, and not twenty years old, gave the right solution, having first offered a reward of four hundred francs to any one who could fully resolve it.

Torricelli, an Italian mathematician, performed some interesting experiments with reference to the air, which led Pascal to turn his attention towards the subject, and he confirmed the truth established by the Italian's researches. This occasioned the publication of his "Treatise on the Weight and Den-

sity of the Air," which was shortly followed by another on the "Equilibrium of Fluids."

His sister, Madame Périer, informs us, that immediately after this, when he was but twenty-four years of age, the providence of God induced him to read some religious books. He became, by these means, thoroughly convinced that Christianity obliges us to live alone for God and his glory; and this truth appeared to him so evident, so necessary, and so useful, that he terminated, without regret, all his scientific researches, and resolved from that time forth to devote himself entirely to the service of religion. We need hardly observe, however, that even scientific studies might have been pursued by him in a religious spirit.

Pascal had a great desire to write a comprehensive and profound work on the Evidences of Christianity. It was, however, never completed; but, after his death, many fragments of it were found written on detached pieces of paper, and these are now published in a volume, under the title of Pascal's "Thoughts."

Besides these "Thoughts," Pascal has left another work, the "Provincial Letters," written against the Jesuits. This has been characterised as the most admirable prose work in the French language; and when the learned and eloquent Bossuet was asked, which among all the books in the world he would most like to have been the author of, he instantly replied, "The Provincial Letters."

Pascal had a profound reverence for the holy scriptures; it is even said that he knew them by heart. His charity towards the poor was unbounded; and when he was reproached one day for his profusion in alms-giving, as sure eventually to bring him to poverty, he simply replied: "I have frequently remarked, that however poor a man may be, when dying he seldom fails to leave something behind him."

For many years previous to his death, Pascal was a great sufferer, and throughout his resignation was most exemplary. Madame Périer, his beloved sister, and her family, came to reside in the house adjoining his during his last illness. At this time Pascal had living with him a poor man, his wife and little son, to whom he had given up one of his apartments entirely out of charity. It happened that the little boy became ill of the small-pox; and Madame Périer coming in every day to visit her brother, it was feared that the disease might prove dangerous to her children. It was therefore proposed to remove the sick child; but this Pascal would by no means permit, affirming that there would be less risk for himself to quit the house. He was accordingly removed to his sister's, and a few days after, at the age of thirty-nine, this great and worthy man died, trusting for salvation in the Saviour.

The character of Blaise Pascal is one we love to contemplate. It presents to our view the spectacle of a combination of the most lofty intellectual endowments, profound thought, extensive scientific acquirements, and a clear and logical understanding, with true and self-denying devotion to the service of God. He was born in a church full of error and corruption, but, along with his brother Jansenists, may be considered as having been in heart a protestant.

THE OLD AND THE NEW YEAR.

I MUSED as the midnight hour drew nigh, and methought the Old Year stood before me. Weary and way-worn he seemed, and in his hand was an hour-glass, whence the last sands were fleeing. As I looked upon his wrinkled forehead, memories both pleasant and mournful came over me. Fain would I have constrained his longer stay, and spake earnestly to him:—

"Many blessings hast thou brought me, for which I give thee thanks. New have they been every morning, and fresh every moment. Thou hast indeed, from my heart's garden, uprooted some hopes that I planted there. With their clustering buds they fell, and were never quickened again."

Then he said, "Praise God, both for what I gave and what I took away. And lay up treasures in heaven, that thy heart may be there also. What thou callest blighted hopes, are oftentimes changed into the fruits of righteousness."

But I answered, "Thou hast also hidden from my sight the loved and the revered. Clouds are strewn upon their faces; they reply to my call no more. To the homes that they made so fair they return not, and the places that once knew them know them no more for ever."

Still he said, "Give praise to God. Trouble not thyself about those that are with him. Rather make thine own salvation sure, that thou mayest go unto them, and be parted no more." Then, in a faint voice, he murmured: "My mission unto man is done. For me, the stone is rolled away from the door of the sepulchre. I will enter in, and slumber with the years beyond the flood, till the last trumpet soundeth."

I gazed upon his wan brow, and to me it was beautiful. Fain would I have swept away the snows that gathered around his hoary temples; but he suffered me not, and stretched himself out to die. By his side I knelt, and said, "Oh departing Year! I behold a scroll folded beneath thy mantle. What witness shall it bear of me at the judgment?"

Low and solemn were his last tones. "Thou shalt know when the books are opened, and the dead, small and great, stand before God."

The midnight clock struck. And I covered my face, and mourned for his death who had once been to me as a friend. I remembered with pain how oft I had slighted his warnings and the opportunities he had given me of doing good, and had cast away the wealth of time, that priceless boon from the Eternal. Methought from the dying lips came a feeble sigh, "Farewell—farewell." Then a passion of weeping fell upon me. And when again I lifted up my head, lo! the New Year stood in the place of the departed.

Smiling, he greeted me with good wishes and words of cheer, while around me lay many bright tokens of friendship and of love. But I was afraid. For to me he was a stranger; and when I would have returned his welcome, my lips trembled and were silent.

Then he said, "Fear not. I come unto thee from the Giver of every good and perfect gift."

"New Year, whither wilt thou lead me? Art thou appointed to bring me joy or sorrow, life or death?"

He replied, "I know not. Neither doth the angel nearest the throne know. Only him who sitteth thereon. Give me thy hand, and question not. Enough for thee, that I accomplish his will. Make that will thine own, and thou shalt taste an angel's happiness even here below. I promise thee nothing. Be content to follow me. Take, with a prayer for wisdom, this winged moment. The next may not be mine to give. Yet, if we walk onward together, forget not that thou art a pilgrim for eternity. If I bring thee the cup of joy, be thankful, and pitiful to those who mourn; and let all men be unto thee as brethren. If the dregs of bitterness cleave unto thy lip, be not too eager to receive relief lest thou betray the weakness of thy faith. God's perfect discipline giveth wisdom. Therefore count them happy who endure. When morn breaketh in the east, gird thyself in the Holy Spirit's strength for thy duties, with a song of thanksgiving. For God is near to those who trust him and rejoice in his ways. And when night putteth on her coronet of stars, kneel and ask that the day's sins may, for Christ's sake, be forgiven thee, so that, when I have no longer any days or nights to give thee, and must myself die, thou mayest bless me as a friend and a helper on the road to heaven."—Mrs. Sigourney.

